AUTONOMOUS SELF DRIVNG CAR

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TESTED

Presented by

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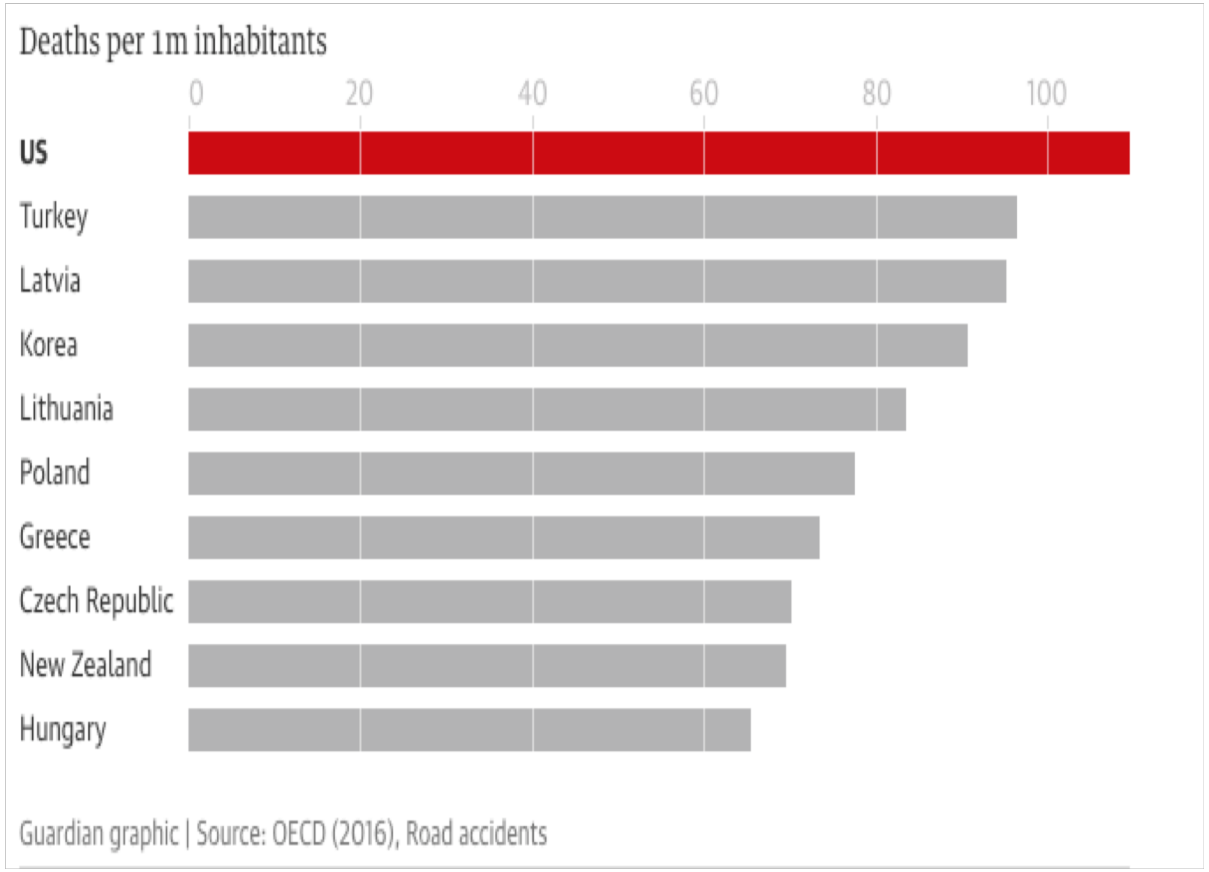
UoB

INTRODUCTION

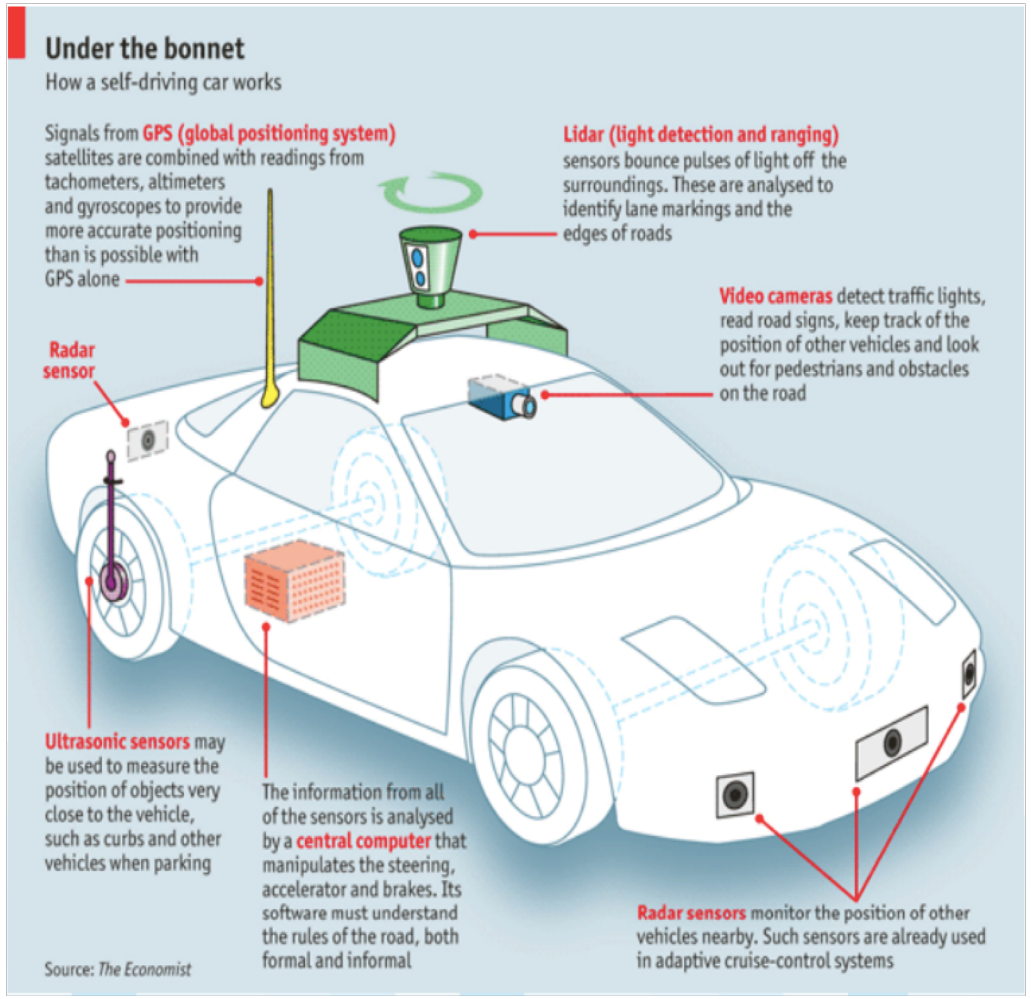
- A computer-controlled car that drives itself. Also called an "autonomous vehicle" and "driverless car,".— *PCmag*
- Gives people mobility autonomously.
- This idea is not new General Motors predicted the development of radio-controlled electric cars in 1939 New York World's Fair.
- The more modern appliances appeared in 1950s, more images of autonomous car were introduced in US.
- In 2016, Google started testing Waymo self driving car. Tesla also testing Tesla-Auto Pilot, even UBER also tested their self- driving car.

Importance

- According to the WHO report 1.35 Million death worldwide due to road accident.
- 8th leading cause of death for people of all ages.
- 2.4 million people injured in 2015 due to vehicle crashes.
- 94% crashes involve due to human choice or error in US.
- The major cause of developing self-driving car for avoiding accident.
- Saving life.
- People can have more relax after long tripe.
- Reduce fuel consumption
- Improve the mobility of old and disable people.



How does it work?



- Cameras – Provide real-time obstacle detection to facilitate lane departure and track roadway information (like road signs).
- Radar – Radio waves detect short & long-range depth.
- LIDAR – Measures distance by illuminating target with pulsed laser light and measuring reflected pulses with sensors to create 3-D map of area.
- GPS – Triangulates position of car using satellites. Current GPS technology is limited to a certain distance. Advanced GPS is in development.
- Ultrasonic Sensors – Uses high-frequency sound waves and bounce-back to calculate distance. Best in close range.
- Central Computer – "Brain" of the vehicle. Receives information from various components and helps direct vehicle overall.
- DRSC - Based Receiver – Communications device permitting vehicle to communicate with other vehicles (V2V) using DSRC,
a wireless communication standard that enables reliable data transmission in active safety applications. NHTSA has promoted the use of DSRC

DISADVANTAGES

- Jobless Driver: This will take over jobs so, taxi driver, truck driver will lose their job.
- Price: Probably it would cost more so, it will be unaffordable for so many people.
- Guilty: Who will be guilty for this vehicle if there is no driver. No one.
- Privacy: Driverless cars would function using your place as well as user information by creating major privacy issues.
- Security : Hacker can hack it and control it by them.
- Reducing driver experience.

CONCLUSION

Reference

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